

CHAPTER 1

NAVAL AVIATION MAINTENANCE PROGRAM (NAMP)

Most of the duties that AZs perform are in direct support of the aviation maintenance technicians who work directly in the aviation maintenance effort. Since most of the duties and responsibilities of an AZ are specifically outlined in the *Naval Aviation Maintenance Program (NAMP)*, OPNAVINST 4790.2, you should have a good working knowledge of the *NAMP*. This chapter will concentrate on the organizational and intermediate levels of aviation maintenance that the *NAMP* describes. It is to activities that perform these levels of maintenance that you, as an AZ, will most likely be assigned. Since it is in the staff divisions of aviation maintenance activities that AZs are assigned, some of the important duties and responsibilities of staff divisions, especially those that an AZ might perform, are discussed.

NAMP OBJECTIVES

LEARNING OBJECTIVE: Identify the purpose of the Naval Aviation Maintenance Program (NAMP).

The objective of the NAMP is to achieve and continually improve aviation material readiness and safety standards through the optimum use of available resources (money, manpower, and material management). This objective is accomplished through command attention, policy direction, technical direction, management, and administration of all programs that affect activities responsible for aircraft maintenance.

As the basic document that governs the Naval Aviation Maintenance Program, OPNAVINST 4790.2 establishes a standardized set of policies and procedures for the management of all Navy and Marine Corps aviation maintenance activities. Any directive or instruction in conflict with the provisions in the *NAMP* should be revised to conform with the *NAMP*.

OPNAVINST 4790.2 consists of five volumes. Each volume describes policies, procedures, responsibilities, and functions that may be applicable to

one, two, or all three levels of maintenance. These five volumes are as follows:

- **Volume I**—Organizational and Intermediate Level Maintenance
- **Volume II**—Depot Level Maintenance
- **Volume III**—Maintenance Data System
- **Volume IV**—Data Processing Requirements
- **Volume V**—NAMP Standard Operating Procedures

The *NAMP*, available in paper and on CD-ROM, outlines the standardized organizational structure of all aviation maintenance activities.

- Q1. The continuous improvement of aviation material readiness and safety through the efficient use of resources is an objective of what program?*
- Q2. The NAMP, OPNAVINST 4790.2, has how many volumes?*
- Q3. What volume of the NAMP outlines procedures for organizational and intermediate maintenance levels?*
- Q4. What volume of the NAMP outlines the Maintenance Data System (MDS)?*

AIRCRAFT MAINTENANCE ORGANIZATION

LEARNING OBJECTIVE: Describe the organizational structure of aircraft maintenance activities.

In most operating aircraft units or activities, the aircraft maintenance department is the largest department. Its primary efforts are to support the unit's mission of flight operations. The operations department carries out the unit's mission. In support of the unit's mission, the objective of the maintenance department is to maintain all unit aircraft in a state of full mission

capability. An aircraft in this category of readiness can safely perform all of its intended missions.

All aircraft maintenance departments in the Navy have a standard organization. The importance of having a standard organization should be clear if you consider what happens when you transfer from one aircraft maintenance activity to another. When you transfer from one activity to another, you should remember the following:

- The work centers in both the old and new activities use the same work center codes and names.
- Officers will occupy similar billets.
- When you perform clerical and administrative duties, you will use the same publications, instructions, forms, and procedures.

In other words, when you transfer from one aviation maintenance activity to another, you should be able to perform in your new activity within a very short period.

Q5. Maintaining assigned aircraft in a state of full mission capability is the objective of what department in an operating unit or activity?

MAINTENANCE LEVELS AND TYPES OF MAINTENANCE

LEARNING OBJECTIVES: Identify the different levels of maintenance. Define and compare maintenance upkeep and repair.

The *NAMP* defines a three-level maintenance concept and is the authority that governs the management of organizational-, intermediate-, and depot-level aviation maintenance. The *NAMP* provides the management tools for the efficient and economical use of manpower and material resources. In addition, the *NAMP* provides the basis for establishing standard organizations, procedures, and responsibilities for the accomplishment of all maintenance on naval aircraft, associated material, and equipment. The three levels of maintenance allow management to accomplish the following:

- Classify maintenance functions by levels
- Assign responsibility for maintenance functions to a specific level
- Assign maintenance tasks that are consistent with job complexity, scope, and range of work to be performed

- Accomplish any maintenance tasks by ensuring optimum use of resources
- Collect, analyze, and use data to assist all levels of management that are concerned with the *NAMP*.

MAINTENANCE LEVELS

The term *aircraft maintenance* has a very broad meaning, ranging from a few minutes of aircraft servicing to many months of overhaul in an industrial-type facility. More than the words *aircraft maintenance* or *maintenance* are needed to define the full scope of aviation aircraft maintenance. The concept divides all aircraft maintenance functions into three distinct levels. The terms that describe these three levels are *organizational maintenance*, *intermediate maintenance*, and *depot maintenance*. The three aircraft maintenance levels provide an orderly separation of maintenance tasks. Task complexity, space requirement, skill level of assigned personnel, and scope of support responsibility are the basis for the separation of tasks.

Organizational Maintenance (O-Level)

Organizational maintenance is the day-to-day work that an operating unit performs in support of its own operations. The mission of the O-level activity is to maintain its aircraft and equipment in a full mission capable status while improving the local maintenance process. Maintenance at this level includes line operations (inspections, servicing, handling, and so forth) and periodic inspections of aircraft and equipment and associated tests. O-level maintenance also includes repairs and minor adjustments that do not require shop facilities as well as the removal and installation of components.

Operating units perform O-level maintenance in assigned facilities. A squadron may have exclusive use of assigned facilities or may share the facilities with one or more other squadrons.

In an operating activity, permanently assigned sailors normally perform organizational maintenance. The operations maintenance division (OMD) performs O-level maintenance at naval air stations on station aircraft. The OMD also provides O-level maintenance and other assistance to transient aircraft.

Intermediate Maintenance (I-Level)

Intermediate maintenance is work that is performed in centrally located facilities for the support of operating activities within a designated geographical

area, at a particular base or station, or aboard aviation ships. The mission of I-level maintenance activities is to sustain the combat readiness of supported activities (squadrons) by providing quality and timely material support at the nearest location with the lowest practical resource expenditure. I-level maintenance includes:

- Shop-type repair and test work on aircraft, components, and equipment from supported units
- Technical assistance to supported units
- Manufacture of selected aeronautical components, liquids, and gases
- Performance of on-aircraft maintenance when required

Permanently assigned Sailors and Sailors that are temporarily assigned from tenant squadrons man intermediate maintenance activities. When these squadrons deploy, their intermediate maintenance Sailors accompany the squadron and are temporarily assigned to the aircraft intermediate maintenance department (AIMD) onboard the ship or at the new station.

Depot Maintenance (D-Level)

Depot-level maintenance supports O- and I-levels of maintenance by providing engineering assistance and performing maintenance that is beyond the capability of O- and I-level activities. Depot maintenance is work that must be done in an industrial-type facility. Such a facility may either be civilian, military, or both. If the work is contracted out to a civilian facility, the type of work is still depot maintenance. Standard depot-level maintenance (SDLM) includes overhaul, repair, and modification of aircraft, components, and equipment. Depot maintenance also includes the manufacture of aeronautical parts for spares, the manufacture of kits for aircraft, and the modification of equipment. The depot level or a lower level of maintenance installs the spare parts and incorporates modification kits.

For the most part; civilians man naval aviation depots (NADEPs), which are Navy depot-level maintenance facilities. Military personnel at a NADEP help perform the intermediate and organizational maintenance work that is related to the depot facility.

MAINTENANCE TYPES

Maintenance technicians perform two types of aircraft maintenance within the Navy—rework and upkeep.

Rework may be performed on any aircraft or equipment. Industrial-type facilities that provide maintenance program support perform rework. Rework is the restorative and additive work that NADEPs, contractor facilities, or other industrial-type facilities perform on aircraft or equipment. There are two categories of rework—SDLM and special.

Upkeep is the preventive, restorative, or additive maintenance for aircraft and equipment. Activities (squadrons) that have aircraft or equipment or have the responsibility of providing direct support to activities that have aircraft or equipment perform upkeep. Upkeep includes periodic inspections, servicing, preservation, modification, replacement, and repair. There are also two categories of upkeep—SDLM and special.

Shore Stations

Navy shore activities that have intermediate maintenance responsibilities have an AIMD to perform the maintenance. Those shore activities with aircraft have an OMD within the operations department to perform organizational maintenance on assigned aircraft and transient aircraft.

A naval air reserve unit performs organizational and intermediate maintenance on its aircraft; however, the supporting station provides logistic support. A naval air reserve squadron that is on active duty or is assigned to a fleet unit provides organizational maintenance on its aircraft.

Ships

Multipurpose aircraft carriers and amphibious assault ships perform organizational and intermediate maintenance on assigned aircraft. These ships also provide organizational and intermediate material, facilities, and support equipment to embarked air wings, squadrons, and other units.

Squadrons

A squadron performs organizational maintenance on its aircraft. While shore based, designated squadron maintenance technicians are assigned to the AIMD of the supporting station for training and augmentation of the support effort. When the squadron is afloat, designated squadron maintenance personnel are assigned, as required, to the AIMD of the supporting ship.

A squadron or unit, regardless of location, may be required to perform intermediate- level maintenance functions on systems and equipments unique to its equipment or mission. The supporting ship or station provides the squadron with materials, facilities, and support equipment. The squadron or unit also provides selected quantities of readily transportable material and support equipment as organizational property.

- Q6. What three levels of maintenance are used within the Navy?*
- Q7. What type of maintenance does the operating unit perform on a day-to-day basis in support of its own operations?*
- Q8. What two types of maintenance are performed within the Naval Establishment?*

AIRCRAFT MAINTENANCE DEPARTMENT ORGANIZATION

LEARNING OBJECTIVES: Describe the responsibilities and organizational structure of organizational maintenance activities (OMAs). Describe the responsibilities and organizational structure of intermediate maintenance activities (IMAs).

An aircraft maintenance department supports naval operations with upkeep on aircraft and associated support equipment. When providing this support, the department adheres to the organizational policies and procedures that the *NAMP* prescribes.

Since all aviation maintenance activities have similarities in mission, operation, and administration, it is only reasonable that they be standardized in these areas as much as possible. An aircraft maintenance department, properly organized and administered, should rank high in the following areas:

- Performance and training of maintenance technicians
- Aircraft, equipment, and system readiness
- Safety
- Efficient use of resources (manpower and materials)
- Management control of the organization
- Evaluation of performance
- Unit combat readiness

- Continuity when aircraft and maintenance technicians are transferred between commands

The objectives of these areas cannot be met by use of an instruction manual or by means of an organizational structure alone. They are met by the intelligent efforts of all naval personnel who are engaged in maintenance tasks. Functions of an aircraft maintenance department include the following:

- Periodic maintenance and routine inspection and servicing of aircraft, associated support equipment, aeronautical material and components, including the necessary disassembly, cleaning, examination, repair, modification, test, inspection, assembly, and preservation
- Special work, when required, to comply with technical directives or local instructions
- Correction of equipment of aircraft and equipment discrepancies
- Assurance of high quality workmanship
- Maintenance of required records and publications
- Maintenance and custody of tools and other equipment that are provided to the activity for its own use
- Training of assigned personnel
- Conducting maintenance and ground handling safety programs
- Submission of reports for statistical, analytical, and historical purposes

The depth and complexity of functions vary with the number and type of aircraft that are involved and the maintenance level.

ORGANIZATIONAL STRUCTURE

An organizational structure exists to help carry out the responsibilities that are needed for mission accomplishment. Each segment (division, branch, section, or work center) of the organization has line or staff responsibilities. A line relationship is a relationship that exists between senior personnel and their subordinates. A line relationship is a direct supervisory relationship that involves work assignments to subordinates. A staff relationship is a

relationship that exists between an advisory staff supervisor and a production line supervisor. The concerns of staff personnel are with administrative service and support of the production effort.

MANAGEMENT

Management in an aviation maintenance organization is *the exercise of authority and responsibility for the performance of the mission, tasks, and work of the maintenance department*. Within an organizational structure, the maintenance officer (MO), with the aid of subordinate officers, is responsible for management of the maintenance department and is responsible to the commanding officer for accomplishment of the department's mission. The MO uses the guidance in directives from higher authority when he or she directs the maintenance department.

Planning, organizing, and controlling the production effort are management responsibilities of the MO. Along with subordinate officers, the MO directs subordinate divisions to comply with local and higher authority maintenance policies and directives. In an aviation organizational maintenance activity, the following subordinate officers assist the MO in management of the department:

- The **assistant maintenance officer (AMO)** is the assistant head of the department and assists the MO in the administration of the maintenance department in accordance with the *NAMP*. The AMO also supervises the activities of staff divisions (quality assurance and maintenance administration).
- The **maintenance material control officer (MMCO)** exercises direct supervision over the production divisions (aircraft, avionics/armament, and line division).
- Various **divisional** and **branch officers** manage their respective divisions and branches.

The organizational structure of a maintenance department provides a firm line of authority from the MO down to the technician who performs aircraft maintenance. The major segments of the department that report directly to the department head are called divisions. Divisions are subdivided into branches and branches into sections.

NOTE: In this manual, the term *department* is used as a general term and applies to all aircraft maintenance activities that have a department head.

ORGANIZATIONAL MAINTENANCE LEVEL

Organizational maintenance activities (OMAs) are the main users and operators of naval aircraft. Therefore, most of the maintenance tasks that they perform are in support of their own day-to-day operations. OMAs are composed of maintenance managers who manage staff divisions that support the productive functions and production divisions that perform the maintenance tasks.

Figure 1-1 is an organizational chart of a typical organizational-level maintenance department. The number shown in the various boxes are division and work center codes. Work center codes identify what shop performed what maintenance. The Maintenance Data System uses work center codes in recording and reporting maintenance actions. Typical work centers include maintenance control and quality assurance.

Staff Divisions

In an OMA activity, staff divisions provide services and support for the production divisions. They correlate the accomplishments and progress of production divisions. Collectively, staff divisions give the MO a consolidated view and current status of the overall maintenance picture. Detailed functions and responsibilities of staff divisions are contained in the *NAMP*. The quality assurance and maintenance administration work centers are staff divisions in an OMA.

MAINTENANCE ADMINISTRATION.—The maintenance administration work center provides the following administrative services for the department:

- Prepares maintenance-related correspondence that requires action or special attention by the MO or higher authority
- Establishes and maintains a central maintenance reporting and record-keeping system for administrative reports and correspondence to include a tickler file to ensure timely submission of recurring reports
- Implements directives that concern distribution, retention, and disposition of administrative reports and records
- Provides clerical and administrative services for the department
- Maintains a master maintenance message board that is annotated with the action that was taken

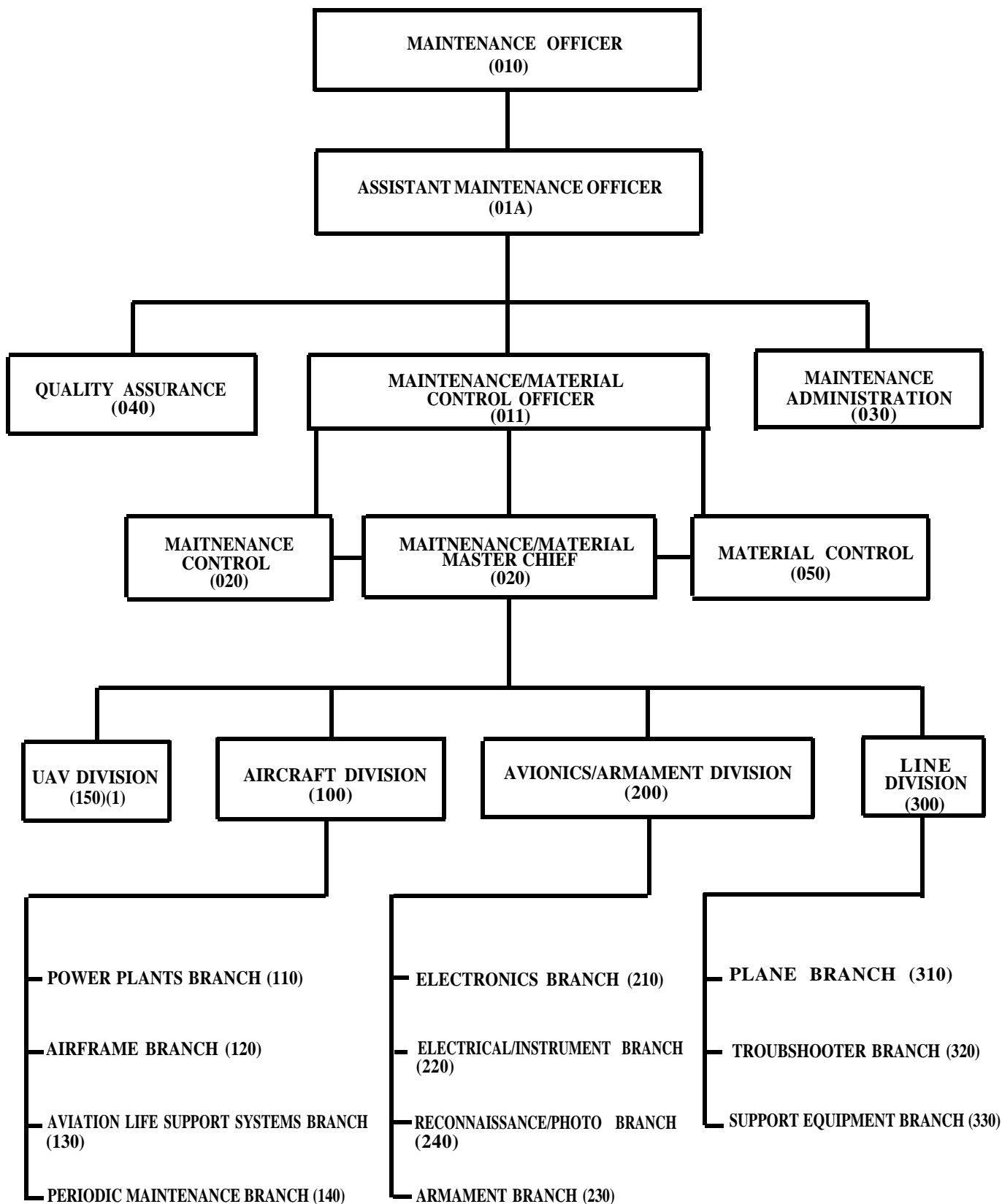


Figure 1-1.—Organizational-Level Maintenance Department Organization Chart.

- Ensures distribution of incoming correspondence and so forth
- Reproduces and distributes incoming messages and maintains a message history file by date-time-group (DTG) for a minimum of 6 months
- Coordinates department administrative and security responsibilities with other departments and divisions
- Distributes nontechnical information and publications
- Maintains personnel assignment records for the department

QUALITY ASSURANCE (QA).—The basic concept of QA is the prevention of the occurrence of defects. This concept includes all events from the start of the maintenance operation to its completion. QA is the responsibility of all personnel. Achievement of QA depends upon prevention, knowledge, and special skills.

Prevention is based upon the principle that maintenance failures should be precluded. This principle extends to the safety of personnel, the maintenance of equipment, and the entire maintenance effort. Prevention is concerned with the regulation of events rather than have events dictate maintenance.

Knowledge is derived from factual information. Data collection and analysis is a means of acquiring this knowledge.

Special skills are those skills possessed by staff that is trained in the techniques of data analysis and supervision of the QA program. Normally, production personnel do not possess these skills.

The QA program provides an efficient method of gathering, analyzing, and maintaining information on the quality characteristics of parts and components and nature of defects and their immediate impact on current operations. The program permits decisions to be based on facts rather than intuition or memory. In addition, the QA program provides comparative data that will be useful long after a particular event has occurred. QA is a staff function that requires both authority and assumption of responsibility for actions. QA's objective is to identify problem areas so that management can accomplish the following:

- Improve the quality, uniformity, and reliability of the total maintenance effort
- Improve the work environment, tools, and equipment that are used in the maintenance effort
- Eliminate unnecessary man-hour and dollar expenditures
- Improve training, work habits, and procedures of maintenance personnel
- Increase the excellence and value of reports and correspondence that are originated by maintenance personnel
- Effectively disseminate technical information
- Establish realistic material and equipment requirements in support of the maintenance effort
- Support the Naval Aviation Maintenance Discrepancy Reporting Program (NAMDRP)
- Support the foreign object damage (FOD) program

The QA division consists of a relatively small group of highly skilled maintenance personnel. Working spaces are usually near productions division and the maintenance control office. For a complete list of QA division responsibilities, refer to the *NAMP*. Some functions and responsibilities of the QA division are listed below:

- Maintain the central technical publications library (CTPL) for the department, control classified technical publications for the department, and ensure that dispersed work center libraries (dispersed libraries) receive publications applicable to each work center, and that these publications are kept current.
- Review incoming technical publications and directives to determine their applicability to the department.
- Ensure that work guides, checklists, check sheets, and Maintenance Requirements Cards that define or control maintenance operations are complete and current before issuance.
- Review each engineering investigation request, quality deficiency report (QDR), technical

publication deficiency report (TPDR), or hazardous material report (HMR) to ensure that it is accurate, clear and concise, and comprehensive before it is forwarded.

- Verify Maintenance Requirements Cards (MRCs) that are entered into the Naval Aviation Logistics Command Management Information System (NALCOMIS), Organizational Maintenance Activity (OMA), or Support Equipment Standardization System (SESS) databases as changes occur to MRC decks.
- Perform inspections of all maintenance equipment and facilities to ensure compliance with fire and safety regulations.
- Provide a continuous training program in techniques and procedures that pertain to the conduct of inspections.
- Maintain a list of the current assignments of personnel who are qualified for specific QA responsibilities. When operating under NALCOMIS OMA, QA division should verify user LOGIN IDs against special maintenance qualification (SMQ) codes to ensure only qualified personnel have quality assurance representative (QAR) and collateral duty inspector (CDI) SMQ codes.

MAINTENANCE MATERIAL CONTROL.—

The MO may consider the tasks that are performed by maintenance material control a staff function. However, the maintenance material control officer (MMCO) exercises authority in a line position between the MO and production divisions. The MMCO is directly responsible to the MO for the overall productive effort and material support of the department. Maintenance/material control has two work centers—maintenance control and material control.

Maintenance Control Work Center.—Maintenance control is the nerve center of the entire maintenance department. As head of this office, the MMCO directs the production division with the aid of the maintenance control officer. The MMCO exercises control and coordination of production divisions to ensure prompt repair and movement of aircraft, parts, and materials. The MMCO also maintains liaison with supporting activities to keep the maintenance department's productive capacity compatible with workload requirements. In discharging these

responsibilities, personnel who are assigned to maintenance control perform the following functions:

- Plan, direct, and control the aircraft maintenance department's production effort
- Plan and schedule aircraft and equipment through the entire maintenance process
- Initiate maintenance actions through work centers for scheduled and unscheduled maintenance actions and assign priorities and completion times
- Maintain aircraft and equipment status through the Naval Aviation Logistics Command Management Information System (NALCOMIS)
- Maintain aircraft logs and records in accordance with established procedures
- Provide data to management in graphic and narrative form to assist in the aircraft maintenance management process
- Maintain the command's NALCOMIS system
- Collect, screen, and forward all MDS data to the local data services facility

In the final analysis, maintenance control personnel plan, schedule, and provide positive control over all maintenance in support of assigned aircraft and equipment. Most of the tasks in maintenance control are within the scope of the AZ rating. For a complete list of maintenance control responsibilities, refer to the *NAMP* and the *NALCOMIS End User's Manual*.

Material Control Work Center.—To maintain an effective aircraft maintenance program, a cooperative working relationship must exist between production and supply. Maintenance of complex weapons systems requires an adequate material supply program. A material control center in organizational maintenance level activities is the liaison between the maintenance department and the local aviation supply department (ASD).

The material control work center ensures that parts, tools, and materials are available to production divisions in a timely manner. Material control compiles and analyzes maintenance usage data and furnishes technical advice and information to the local ASD. This information is used to identify the quantity of supplies,

spare parts, and material that are necessary to accomplish the workload.

The material control work center provides material support to the aircraft maintenance department by performing the following functions:

- Ensures maintenance and material requirements for parts and materials are forwarded to ASD by using NALCOMIS
- Establishes delivery and pickup points for the material that is ordered, and ensures that the material that is received is promptly routed to the applicable work center
- Establishes procedures to operate the tool room and for tool inventories
- Initiates surveys in the event of loss, damage, or destruction of accountable items of material and equipment
- Performs certain cost and allotment record accounting, charting, and budgeting of costs
- Maintains liaison with ASD on maintenance material matters to ensure that material needs of the maintenance department are satisfied
- Performs an inventory of aircraft upon receipt and transfer to ensure that inventory log entries are complete, and inventory shortages are recorded

The material control center also maintains aircraft inventory records. This includes the inventory of aircraft upon receipt and transfer. For a complete list of material control responsibilities, refer to the *NAMP*.

Production Divisions

Permanently assigned aviation mechanics and technicians maintain naval aircraft. Organizational charts show production divisions as the lowest element, but this is not in keeping with their level of importance. If it were not for the production divisions, there would be no reason for any other part of the organization.

The production elements of an OMA consist of four divisions, as shown in figure 1-1. These divisions maybe further subdivided into branches.

AIRCRAFT.—The aircraft division coordinates and completes scheduled (inspections) and unscheduled maintenance on aircraft and equipment. The aircraft division performs organizational maintenance tasks on power plants, airframes, aviator's equipment branch, and inspection branch.

AVIONICS/ARMAMENT.—The avionics/armament division performs organizational maintenance tasks in the avionics and armament equipment on aircraft. This division also provides technicians to the aircraft division (inspection branch) to accomplish scheduled maintenance (inspections) on aircraft.

LINE.—The line division provides maintenance that supports the day-to-day tasks that are involved in flight operations. The maintenance that the line division provides is limited to servicing and does not involve repair of weapon systems. Daily and turnaround inspections, oil replenishment and sampling, minor adjustment and checkout of installed aircraft equipment, and assumption of custody and accountability of division support equipment (SE) are responsibilities of the line division. The line division also administers the plane captain assignment and qualification program. The line division directs troubleshooters, who are normally personnel from work centers in other production divisions, who are assigned to the line division.

UNMANNED AERIAL VEHICLE (UAV).—A UAV division is established when responsibilities relative to the operation and maintenance of unmanned aerial vehicles are extensive. The UAV division coordinates and performs periodic maintenance, inspection, decontamination, and rehabilitation of recoverable UAVs.

INTERMEDIATE MAINTENANCE LEVEL

Intermediate maintenance supports and supplements the work of OMAs. Intermediate maintenance usually performs these functions in a centrally located area for the support of operating aircraft. These operating aircraft may be ashore, aboard ship, or within a specific geographical area.

Since an intermediate maintenance activity (IMA) is not assigned aircraft for operational purposes, its efforts are concentrated in the area of testing and repairing aircraft components.

The organizational structure of IMAs is similar to the organizational structure of an OMA. Because of its size, the complexity of its tasks, and the depth of the maintenance it performs, an IMA is composed of more divisions than an OMA. An IMA department organizational chart is shown in figure 1-2.

Staff Divisions

Staff divisions serve the same purpose as an IMA in an OMA—to provide services and support to the production divisions. The maintenance administration division, quality assurance, maintenance/material control (with its two branches—production control and material control) provide the MO with a complete picture of the maintenance situation as it exists at a given time.

MAINTENANCE ADMINISTRATION.—The maintenance administration division, under the leadership of the AMO, performs the same general services as the OMA maintenance administration division with the addition of the following additional tasks:

- Maintains liaison with the administrative department regarding departmental matters
- Safeguards and distributes personal mail to department personnel
- In the absence of a manpower, personnel, and training (MP & T) coordinator, maintains an organizational roster, automated or manual, that should include name, rate, and billet assignment in conjunction with the activity manning document
- In the absence of an MP & T coordinator, establishes and coordinates department training requirements and obtains school quotas to support department training requirements
- Coordinates transportation and communication requirements for the department
- Assigns spaces to divisions and assumes responsibility for cleanliness and security of unassigned or vacant maintenance spaces
- Controls department classified material
- Distributes locally issued maintenance directives, procedures, reports, and studies
- Arranges department participation in joint inspections of facilities that are assigned to

tenant activities, especially when a tenant activity is departing

- Maintains correspondence files in accordance with the *Navy Directive System*, SECNAVINST 5210.11

For detailed responsibilities of the maintenance administration division, refer to the *NAMP*.

QUALITY ASSURANCE DIVISION.—The QA division has the same prime responsibilities as an OMA to prevent the occurrence of defects. The QA division accomplishes this in two ways: (1) through statistical analysis to compare desired results against actual results, and (2) through extensive research to find methods for improving effectiveness of the overall maintenance effort.

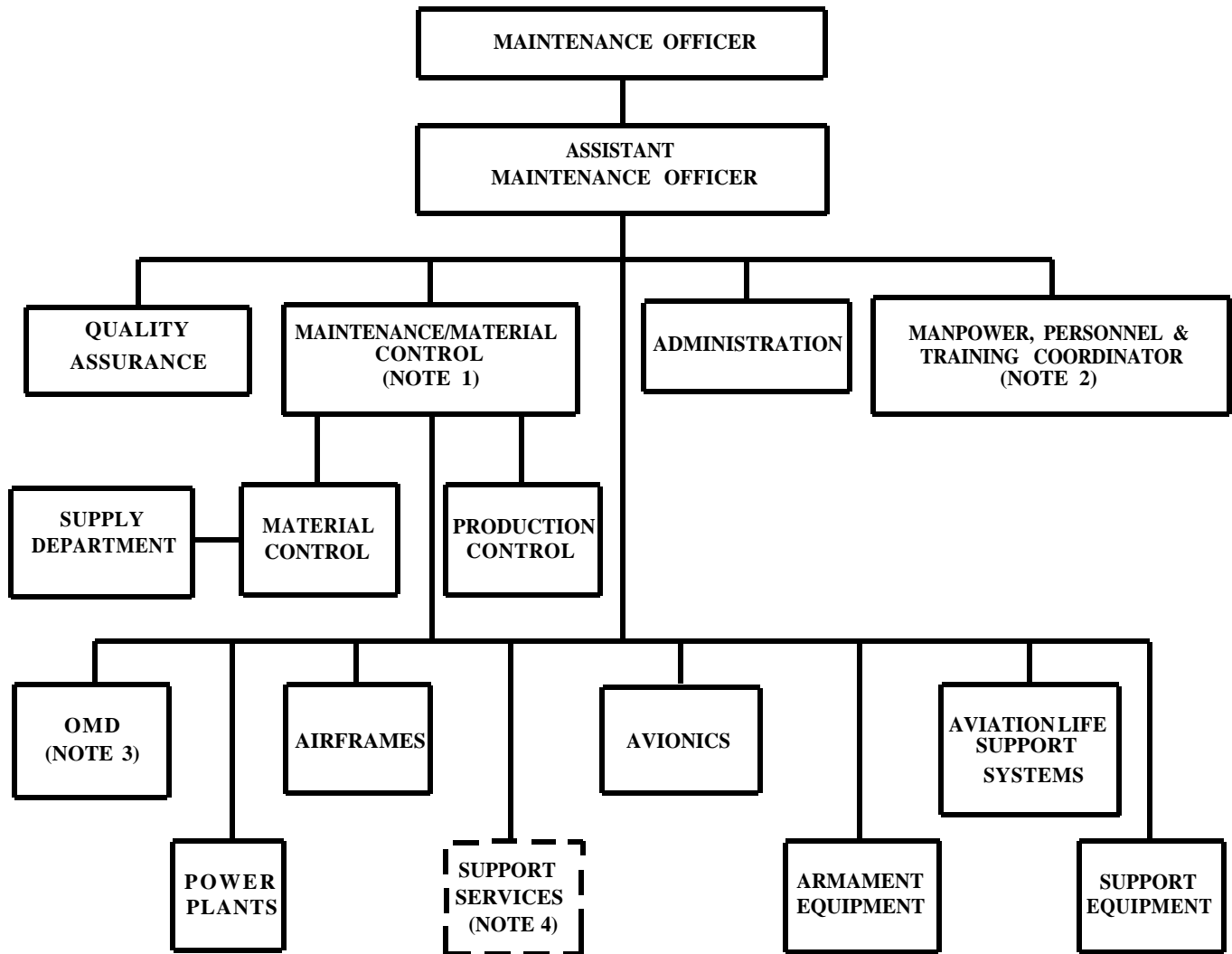
Major concerns of the QA division include the following:

- Safety of personnel and equipment
- The need for training of maintenance technicians in efficient techniques
- Reliability of equipment, parts, materials, and the procedures that are used in the maintenance of each
- Qualification of QA personnel, including collateral duty inspectors (CDIs)

MAINTENANCE MATERIAL CONTROL.—Like the maintenance material control in an OMA, maintenance material control in an IMA has two work centers—production control and material control.

Production Control.—As the name implies, production control is the central control point of the entire maintenance effort. Production control plans, schedules, and assigns the maintenance tasks within the maintenance department. Since intermediate maintenance activities exist primarily for the purpose of supporting operating activities, production control plans and schedules a workload that consists of testing, repairing, and processing aircraft components, parts, and related equipment.

Because of its size, the location of its various work centers, and the number of components that it processes daily, it is not practical for an IMA to control each component that is inducted into the activity from a central production control area. Therefore, production control delegates some of its functions to selected



Breakdowns beyond the basic divisions are not illustrated because of the variety of branches possible. Activities will be required to establish the necessary branches to meet their individual requirements. Branches should be established only when more than one work center is involved, for example, Jet Engine Branch with work centers J79 engine and J52 engine.

NOTES

1. Direct authority for production matters only.
2. For larger IMAs that have more than 500 personnel (including TAD personnel). This position is not required for IMAs with less than 500 personnel.
3. When specific authority has been granted to combine the OMD and IMA, an Organizational Maintenance Division will be established.
4. This is an optional division. Support services may include such functions as IMRL and TOL management, ECAMs, and other functions as determined by the MO.

Figure 1-2.—Intermediate Level Maintenance Department Organization Chart.

production divisions. A division with delegated functions exercises direct control of the production effort of its work centers. Although production control delegates control of some of its functions, it alone is responsible for the overall production effort of the department.

Material Control.—Material control coordinates and controls the supply functions of the maintenance department. This work center acts as liaison between the department and the local supply activity, and it processes all supply and material transactions for the other divisions of the department. The material control division of an IMA has an aeronautical material screening unit (AMSU). AMSU coordinates the screening of received materials and parts to determine status and repair responsibility and capability.

Production Divisions

Production divisions provide intermediate maintenance on aircraft components and equipment for supported activities. The standard organization of an IMA has six production divisions. IMA production divisions are generally manned by maintenance technicians of the same rating in contrast to an OMA where technicians of different ratings are grouped together into fewer divisions. A particular rating performs the same type of work regardless of the maintenance level at which a technician works. For example, ADs work on engines and related equipment, AEs on instruments and related equipment, and ATs work on avionics equipment. The difference between the work of IMA production divisions and the work of OMA production divisions lies in the greater depth of maintenance that an IMA performs.

POWER PLANTS.—Aviation Machinist Mates (ADs) who maintain engines, modules, power plant components, and associated equipment man the power plants division.

AIRFRAMES.—Aviation Structural Mechanics (AMs) are assigned to work centers in the airframes division. This division is responsible for its specified depth of maintenance for airframe and structural components, and movable structures and surfaces including their hydraulic and pneumatic control and actuating systems and mechanisms. The airframes division also maintains air conditioning, pressurization, visual improvement, oxygen, and other utility systems, as well as seat and canopy ejection systems and components.

AVIONICS.—The avionics division is manned with technicians to provide maintenance of avionics equipment for supported activities. Aviation Electrician's Mates (AEs) maintain aircraft electrical systems and instrument systems. Aviation Electronic Technicians (ATs) use conventional and automatic test equipment to maintain aviation electronic components, including repair of weapons replaceable assemblies (WRAs) and shop replaceable assemblies (SRAs). ATs also perform microminiature (2M) component repair. In addition, ATs perform test equipment qualification and associated test bench preventive and corrective maintenance.

ARMAMENT EQUIPMENT.—Aviation Ordnancemen (AOs) are assigned to the armament division. They maintain aircraft armament and aviation ordnance equipment.

AVIATION LIFE SUPPORT SYSTEMS.—Aircrew Survival Equipment (PRs) are assigned to the aviation life support systems (ALSS) division. This division maintains parachutes, life rafts, life vests, pressure suits, oxygen masks, emergency equipment kits, flight clothing, oxygen regulators, automatic parachute actuators, aviator's protective helmets, and so forth.

SUPPORT EQUIPMENT (SE).—The Aviation Support Equipment Technician (AS) maintains SE. SE includes, but is not limited to, such items such as test stands, work stands, mobile electric power plants (MEPPs), and hydraulic and pneumatic servicing equipment.

- Q9. Who is responsible to the commanding officer for the accomplishment of the maintenance department's mission?*
- Q10. Providing clerical and administrative services to the department is a function of what work center?*
- Q11. The prevention of the occurrence of defects is a concept of what work center?*
- Q12. What officer is responsible for the overall productive effort and material support of the maintenance department?*
- Q13. What work center in an OMA is the nerve center of the entire maintenance department?*
- Q14. What work center is responsible for ensuring that parts, tools, and materials are available to production divisions in a timely manner?*

- Q15. *What level of maintenance has the primary responsibility of supporting and supplementing the work of OMAs?*
- Q16. *In an IMA, what work center controls the department's classified material?*
- Q17. *What unit in an IMA coordinates the screening of materials and parts to determine repair responsibility and capability?*

SUMMARY

The objective of the Naval Aviation Maintenance Program is the achievement and continuous improvement of aviation material readiness and safety through the efficient use of resources. The governing directive of the program is *the Naval Aviation Maintenance Program (NAMP)*, OPNAVINST 4790.2. OPNAVINST 4790.2 has five volumes. Of direct interest to the AZ is volume I of the *NAMP*, which outlines procedures for the organizational and the intermediate maintenance levels, and volume III of the *NAMP*, which outlines the Maintenance Data System (MDS).

Rework and upkeep are the two types of maintenance that are performed within the Navy. Organizational maintenance, intermediate maintenance, and depot maintenance are the three levels of maintenance that are used within the Navy.

An aviation operating unit performs daily organizational maintenance in support of its flight operations. The maintenance department's mission within an aviation operating unit is to maintain operating unit aircraft in a state of full mission capability. The maintenance officer is responsible to the commanding officer for accomplishing this mission.

The maintenance administration work center provides clerical and administrative services to the maintenance department. The quality assurance work center has as its objective the prevention of the occurrence of defects in maintenance.

The maintenance material control officer is responsible for the overall productive and material support of the maintenance department. The maintenance control work center in an organizational maintenance activity (OMA) is the nerve center of the entire maintenance department. The material control work center in an OMA ensures that parts, tools, and materials are always available to the production divisions.

The intermediate level of maintenance supports and supplements the work of an OMA. In an intermediate maintenance activity (IMA), the maintenance administration work center controls the department's classified material. The aeronautical material screening unit (AMSU) of an IMA coordinates the screening of materials and parts to determine repair responsibility and repair capability.

The role that an AZ plays in the Naval Aviation Maintenance Program is an important one. Regardless of your assignment, whether ashore or at sea, in a squadron, or in an aviation intermediate maintenance department, the concept of providing safe, reliable aircraft should be your primary objective. To meet this objective, the Navy relies on you, the AZ, to provide detailed, exact information.

The references that are identified in this manual (in *italic*) are the references that you should use in your day-to-day tasks. When you are unsure about how to perform a certain task, never rely on your memory. Learn to use your references. Using your references should make your job easier and you will be respected for being professional and **doing your job right the first time.**

ANSWERS TO REVIEW QUESTIONS

- A1. *The Naval Aviation Maintenance Program (NAMP).*
- A2. *Five.*
- A3. *Volume I.*
- A4. *Volume III.*
- A5. *Maintenance.*
- A6. *Organizational, intermediate, and depot.*
- A7. *Organizational.*
- A8. *Rework and upkeep.*
- A9. *Maintenance officer.*
- A10. *Maintenance administration.*
- A11. *Quality assurance.*
- A12. *Maintenance material control officer.*
- A13. *Maintenance control.*
- A14. *Material control.*
- A15. *Intermediate level.*
- A16. *Maintenance administration.*
- A17. *Aeronautical material screening unit (AMSU).*